

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Len C. Kretchman et al  
For : SEALED CRUSTLESS SANDWICH  
Serial No. : 09/404,701  
Filed : September 24, 1999  
Group Art Unit : 1761  
Last Office Action : January 19, 2001  
Examiner : Lien Tran  
Our Docket No. : SMA-12271-1

DECLARATION OF MALCOLM COOKE

Malcolm Cooke, associated with the Department of Mechanical & Aerospace engineering at Case Western Reserve University being warned that willful false statements and the like are punishable by fine or imprisonment or both under 18 U.S.C. § 1001 hereby declares that all statements made of his own knowledge are true and any statements made on information and belief are believed to be true.

1. Attached hereto is my resume showing my expertise in the field of mechanical engineering.
2. I have reviewed the pages from The Pampered Chef brochure and pages from a book entitled *Pasta, Pies and Pastries* cited by the examiner in the above-identified matter.
3. I have also tested a unit like the Tartmaster sold by The Pampered Chef and shown

generally in Napolillo 2,765,755, but for a molding of uncooked dough preparatory to baking or cooking.

3. The illustrations by the publications of the "Tartmaster" being used with two slices of bread show pressure being applied by the hand to the central spring-loaded knob. As the knob is forced down, the crimping ring contacts the top slice of bread, the spring located between the body and the underside of the knob imparts a spring force to the outer ring causing it to begin penetrating the top slice of bread. The inner ring compresses the two slices until being stopped by the surface on which the two slices of bread have been placed. At this time all action is complete and increasing the force on the knob has no effect whatsoever. The "Tartmaster" uses what is regarded as a coupled design. This means that the actions of both cutter and crimping ring are dependent on one another. The coupling between the two actions being provided by the spring located between the underside of the knob and the top surface of the outer body.

4. Experiments by me using the "Tartmaster" show clearly that this only results in 'crimped' and partially cut pieces of bread. The resulting 'sandwich' is not cleanly separated from the bottom slice of bread and requires tearing loose from the bottom slice that damages and unseals the crimped edges.

5. The only force being applied to the outer ring of the "Tartmaster" is the force generated by compressing the spring located between the body and the underside of the knob. Experiments show that this force (controlled by the stiffness of the spring) is not sufficient to cause the outer body to completely and cleanly cut through the two slices of bread.

6. To cut cleanly through the two slices of bread the two actions, namely cut and crimp should be uncoupled. Then the elements are independent of one another to allow each operation

to be carried out separately. A different sequence of operations would be obtainable with an uncoupled design. A steady, continuous downward force could be applied to the periphery of the outer body until the cutting edge of the body is in contact with the surface on which the bread has been placed. This action will cause the outer ring to cut through the two slices of bread leaving cut portions. Then a downward force could be applied to the central crimping knob until again a firm resistance is experienced. This second action would force the inner ring onto the surface of the top slice of bread, compressing the two cut slices together and crimp the edges of the bread whilst the outer body keeps the cut portion centrally located. This action is not suggested by the "Tartmaster." The coupled actions are performed at the same time.

7. In summary, the design of the Pampered Chef "Tartmaster" is a coupled design.
  - a. The cut and crimp or mold action of the device is dependent and takes place at the same time.
  - b. The cutting force applied to the outer body ring is not independently applied, but is a function of the stiffness of the spring located between the underside of the knob and the top surface of the outer body ring.
  - c. A varying downward force applied to the central knob of the device has no effect on the downward cutting force being applied by the outer body ring to the slices of bread.
  - d. The operation of the coupled design dictates that the bread is first crimped during the initial cut phase and

then completely crimped. The outer body ring does not completely cut through the bottom slice of bread and is not positively or independently driven.

- e. To remove the sandwich from the two slices of bread requires tearing the slices of bread in order to free the sandwich.
- f. The removal action of the sandwich (e above) causes the edges of the sandwich to tear, thereby, unsealing and damaging the edge of the sandwich which would allow the filling to escape.

8. In my opinion neither the hand held "Tartmaster" nor its operating action could be used for mass production of crustless sandwiches as contemplated by the above-identified application.

- 9. The process in the above-identified application requires an uncoupled mechanism.
  - a. The cut and seal vertical action of the device is totally independent.
  - b. A predetermined force is applied to the outer body ring independently to the predetermined force being applied to the internal ring.
  - c. The operation sequence of the specification cuts the bread through by downward motion of the outer body ring. The sealing ring is then moved to completely

seal the edges of the cut portions. The action of both  
rings gives a cut and the seal process.

10. The attachment shows a process disclosed in the above-identified application. A person with ordinary skill in the mechanical engineering field would understand this disclosed method.

Date: 15 March 2001  
Cleveland, Ohio

Malcolm Cooke  
MALCOLM COOKE

## CURRICULUM VITAE

M. N. COOKE - B.Eng. (Hons), M.Sc. (Dist), Cert. Ed. (Dist)

### TITLE:

Adjunct Assistant Professor, Director of Technical Support Services and Director of the Reinberger Product and Process Development Laboratory, Mechanical & Aerospace Engineering Department, The Case School of Engineering, Case Western Reserve University.

### CAREER:

- 2000 - Adjunct Assistant Professor, Director of Technical Support Services, Director of the Reinberger Product and Process Development Laboratory, Mechanical & Aerospace Engineering Department, The Case School of Engineering, Case Western Reserve University, Cleveland, OH.
- 1999 - Adjunct Assistant Professor, Faculty Director of the Master of Engineering Programme, Mechanical & Aerospace Engineering Department, The Case School of Engineering, Case Western Reserve University, Cleveland, OH.
- 1998 - Director of Technical Support Services, Director of the Reinberger Product and Process Development Laboratory, Mechanical & Aerospace Engineering Department, The Case School of Engineering, Case Western Reserve University, Cleveland, OH.
- 1995 - 98 Senior Lecturer in Advanced Manufacturing, Director of the Reinberger Product and Process Development Laboratory, Director of Engineering Workshops, Mechanical & Aerospace Engineering Department, The Case School of Engineering, Case Western Reserve University, Cleveland, OH.
- 1994 - 95 Supervisor of EPSRC\* PhD. Research Student  
(\*Engineering and Physical Science Research Council), Coventry University, Coventry, UK.
- 1993 - 95 Program Manager for Higher National Diploma (HND) Manufacturing Systems Engineering and HND Manufacturing Management Courses, Coventry University, Coventry, UK.
- 1990 - 95 Senior Lecturer in Advanced Manufacturing, Coventry University, Coventry, UK.
- 1989 - 90 Senior Lecturer in Advanced Manufacturing, Huddersfield University, Huddersfield, West Yorkshire, UK.
- 1988 - 89 Warwick University - M.Sc. (Dist.) 'Information Technology for Manufacture', Warwick, UK.
- 1972 - 88 Lecturer/Senior Lecturer in Manufacturing, Henley College, Coventry, UK.
- 1969 - 72 Training Analyst, Brico Engineering Ltd., Coventry, UK.
- 1968 - 69 Machine Tool Fitter/Standards Engineer, Herbert Ingersoll Ltd., Daventry, UK.
- 1960 - 68 Mechanical Engineer, Courtaulds Engineering Ltd., Coventry, UK.
- 1960 - 68 Mechanical Engineering Apprentice, Courtaulds Engineering Ltd., Coventry, UK.

#### TEACHING INTERESTS:

CAD/CAM/CAE, Lean Manufacturing Strategies.

Application of information technology to the design and implementation of advanced manufacturing systems.

Rapid prototyping technology focused on biomedical applications.

#### RESEARCH INTERESTS:

The development of integrated strategies for the manufacture of biodegradable craniofacial prosthetic structures using 3D CAT/MRI data, CAD solid modelling and rapid prototyping technology.

The investigation into prosthetic joint design and material performance of total knee and hip joint implants to improve joint life.

#### PUBLICATIONS:

Cooke M (1989) The Use of Graphical Simulation for the Design of Automated Robotic Cells, Beijing, China, (Conference Proceeding)

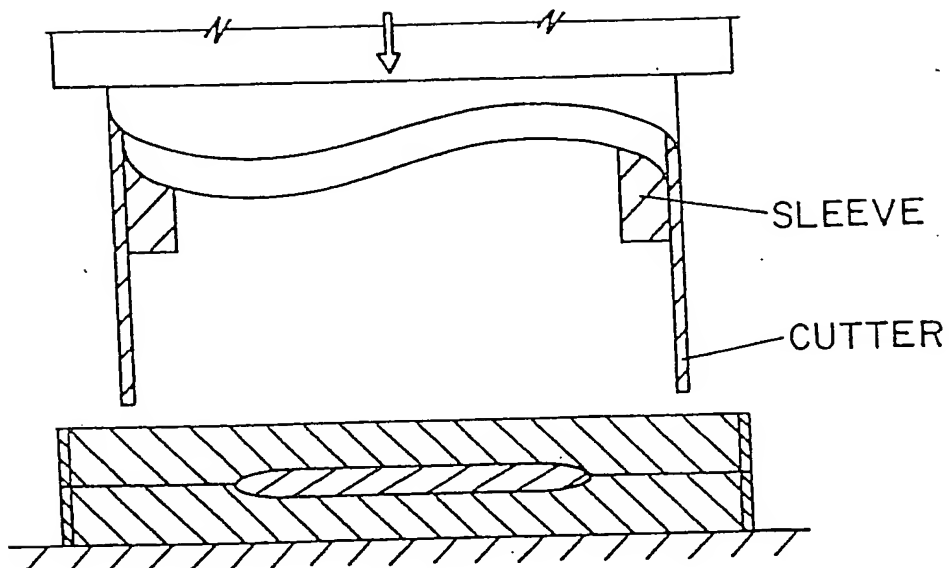
Lee Y-L, Cooke MN, Pennington DE, Jepsen KJ (1999) Alterations in Damage Mechanisms Contribute to Fragility in Two Genetically Distinct Inbred Mouse Strains. J Biomech.

Dean D, Goldberg D, Topham N, Mikos A, Rimnac C, Jepsen K, Cooke M, Caplan A, Ratcheson R (to be published 2000) Rapid Prototyping of Neurocranial Prosthetics. Computer Assisted Surgery (CAS) & Rapid Prototyping in Medicine.

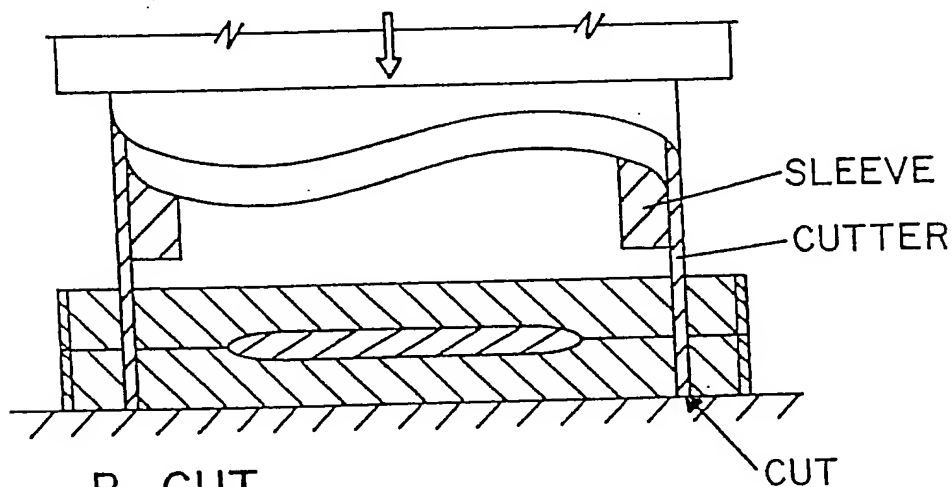
Cooke MN, Fisher MS, Rimnac C, Dean D, Mikos, A. (to be submitted) Stereolithographic Cross-Linking of a Biocompatible, Biodegradable Polymer, Poly(propylene fumarate), JBMR (Applied Biomaterials).

#### CONTACT INFORMATION:

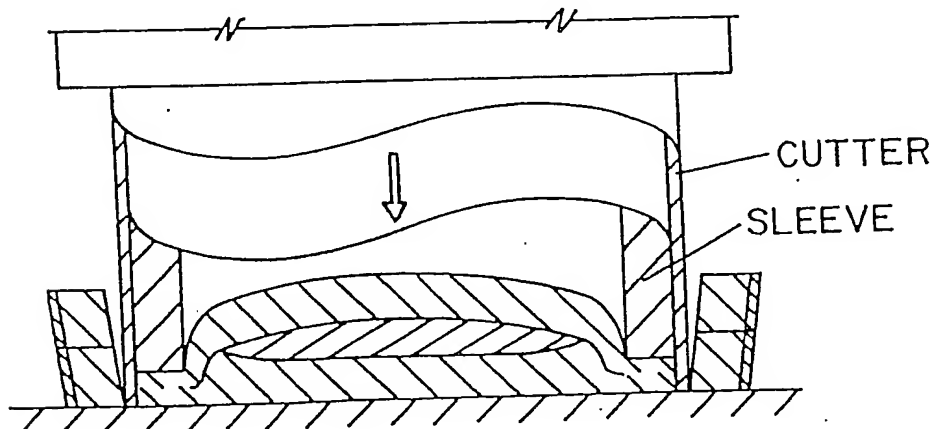
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B. CUT



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